

REMARKS

The present invention is a method for reducing and removing the signs of cutaneous aging, tightening the skin, or removing wrinkles, comprising applying onto skin a composition comprising a grafted silicone polymer, where the grafted silicone polymer has a polysiloxane backbone grafted by at least one non-silicone organic monomer.

The rejection of Claims 1-8, and 19 under 35 U.S.C. §102(b) over Hutchins et al is respectfully traversed. Hutchins fails to suggest or describe the grafted silicone polymer of the present invention.

Hutchins describes compositions comprising a copolymer complex. The copolymer complex consists of a copolymer having hydrophobic A monomer units, hydrophilic B monomer units, and an optional grafted hydrophobic C macromonomer unit. The complexing fatty acid forms a complex with the nitrogen containing functional groups of the B monomer units. See the discussion in Hutchins at page 3, lines 7-32. Hutchins describes the A monomer units and B monomer units at pages 10 and 11, respectively. However, none of the A or B monomer units include monomers capable of providing a polysiloxane backbone, nor are there examples of polysiloxane polymers grafted with a non-silicone organic monomer. Thus, Hutchins fails to describe a composition comprising a grafted silicone polymer having a polysiloxane backbone, nor a method in which such a composition is applied to the skin. Accordingly, Hutchins neither anticipates nor suggests the methods or compositions of the present invention. Applicants respectfully request withdrawal of the rejection.

The rejection of Claims 1-23 under 35 U.S.C. §103(a) over the combination of Hutchins, Sebag et al, Dubief et al, and Sidhu are respectfully traversed. None of the applied references describe a method for reducing or removing the signs of cutaneous aging,

tightening the skin, or removing wrinkles, nor compositions comprising the grafted silicone polymer of the present invention, combined with a lipolytic, slimming, firming, antiglycant and/or ways of protective compound or the extracts of Claim 22.

As discussed above, Hutchins fails to describe the grafted silicone polymer of the claimed method, and therefore fails to describe or suggest a method of treating skin with such a grafted polysiloxane, nor compositions comprising the grafted polysiloxane. In addition, Hutchins fails to describe a composition having lipolytic, slimming, firming, antiglycant and/or vasoprotective compounds, nor various extracts in combination with such a grafted silicone polymer.

Sebag et al fails to rectify the deficiencies of Hutchins. Sebag et al is directed to compositions and methods "for washing and conditioning keratinous materials" (Abstract) and describes only shampoo compositions. Thus, Sebag et al only describes methods of treating hair, not skin, as in the present invention. Moreover, Sebag et al fails to describe compositions comprising the grafted polysiloxane of the present invention, combined with lipolytic, slimming, firming, antiglycant and/or vasoprotective compounds.

Likewise, Dubief et al fails to rectify the deficiencies of Hutchins, because Dubief only describes hair styling sprays, gels, and foams, and describes such compositions as products intended for "washing, caring for or conditioning the hair, form retention of the hairstyle or shaping of the hairstyle "(Abstract)". Thus, Dubief et al only describes methods of treating hair, not skin, as in the present invention. Moreover, Dubief et al fails to describe compositions comprising the grafted polysiloxane of the present invention, combined with lipolytic, slimming, firming, antiglycant and/or vasoprotective compounds.

Sidhu merely describes a method of preparing biological extracts which are intended to bring "about regeneration of the hair roots and of the skin" (column 2, lines 10-15).

However, Sidhu fails to describe compositions combining a grafted silicone polymer with such extracts, nor does it describe lipolytic, slimming, firming, antiglycant and/or vasoprotective compounds. In addition, because Sidhu teaches that such extracts are themselves active agents for regenerating hair growth and tightening the skin, there would be no motivation to add additional skin tightening agents, such as the grafted silicone copolymers of the present invention.

As discussed above, Hutchins fails to describe the grafted silicone polymer of the present invention. Sebag et al and Dubief et al fail to describe methods or compositions for reducing or removing the signs of cutaneous aging, tightening the skin, or removing wrinkles, but rather, describe compositions and methods for treating hair. Sidhu describes extracts for regenerating hair growth and regenerating and tightening the skin, but fails to describe the grafted silicone polymers of the present invention. Thus, the combination of these references fails to describe or suggest a method of treating skin, in which a composition comprising a silicone backbone grafted with a non-silicone monomer is applied to the skin. Moreover, none of the applied references, either individually or in combination describe the claimed compositions, combining the grafted silicone polymer, with one or more additional lipolytic, slimming, firming, antiglycant and/or vasoprotective compounds, or extracts. Accordingly, Applicants respectfully request withdrawal of the rejection.

The rejection of Claim 21 under 35 U.S.C. §112, first paragraph is obviated by appropriate amendment. As amended, the terms "draining" and "disinfiltrating" have been deleted from Claim 21. The remaining subject matter is expressly described in the present application at page 13, line 17 to page 15, line 26. Applicants note that each of these compounds are expressly defined in the specification, and examples thereof have been provided.

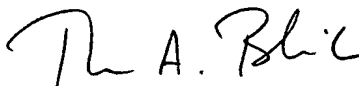
The rejection of the claims under 35 U.S.C. §112, second paragraph are obviated by appropriate amendment. Claim 3 has been amended to recite a "method for removing wrinkles" and the phrase "in particular" has been deleted. Claims 4-10 have been canceled. Claim 11 recites a method in which the "grafted" silicone polymer is prepared by the radical copolymerization of various monomers", and the term "exhibiting" has been deleted. The term "derivative" in Claim 22 has been deleted. In addition, as discussed above, Applicants note that Claim 21 has been amended to delete the word "draining" and "disinfiltrating", and the remaining terms are expressly disclosed and defined in the specification.

Accordingly, and for the reasons stated above, Applicants respectfully request withdrawal of the rejections.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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Marked-Up Copy
Serial No: 09/533,361
Amendment Filed on:
November 26, 2001

IN THE CLAIMS

--1. (Amended) A [Method] method for reducing or removing the signs of cutaneous aging, comprising applying onto skin a composition comprising at least one grafted silicone polymer comprising a polysiloxane portion and a portion [composed of] comprising a non-silicone organic chain, one of the two portions constituting [the] a main chain of the polymer and the other being grafted to the [said] main chain, wherein the grafted silicone polymer is a polymer with a polysiloxane backbone grafted by at least one non-silicone organic monomer.

2. (Amended) A [Method] method of tightening the skin comprising applying onto skin a composition comprising at least one grafted silicone polymer comprising a polysiloxane portion and a portion [composed of] comprising a non-silicone organic chain, one of the two portions constituting [the] a main chain of the polymer and the other being grafted to the [said] main chain, wherein the grafted silicone polymer is a polymer with a polysiloxane backbone grafted by at least one non-silicone organic monomer.

3. (Amended) A method for removing wrinkles [Method of using in the manufacture of a composition intended to decrease or remove the signs of cutaneous ageing, in particular to reduce or remove wrinkles and/or fin lines of the skin and/or to smooth out the skin, of] comprising apply onto skin a composition comprising at least one grafted silicone polymer comprising a polysiloxane portion and a portion [composed of] comprising a non-silicone

organic chain, one of the two portions constituting [the] a main chain of the polymer and the other being grafted to the [said] main chain, wherein the grafted silicone polymer is a polymer with a polysiloxane backbone grafted by at least one non-silicone organic monomer.

11. (Amended) The [Method] method of any one of Claims 1 to 3 [according to Claim 10], [characterized in that] wherein the [said] grafted silicone polymer [comprises the result of] is prepared by the radical copolymerization [between, on the one hand,] of at least one anionic non-silicone organic monomer [exhibiting] having an ethylenic unsaturation and/or at least one hydrophobic non-silicone organic monomer [exhibiting] having an ethylenic unsaturation, and[, on the other hand,] a silicone [exhibiting] having, in its chain, at least one functional group capable of reacting with the [said] ethylenic [unsaturations] unsaturation of the [said] non-silicone [monomers with the formation of] monomer, thereby forming a covalent bond.

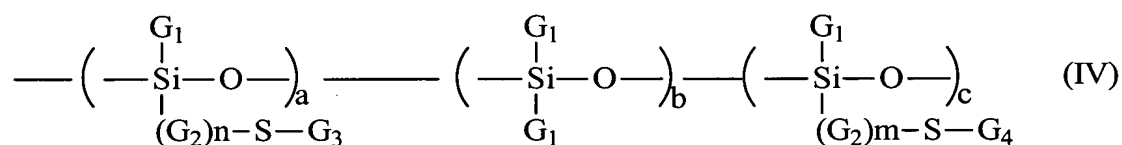
12. (Amended) The [Method] method of [according to] Claim 11, [characterized in that] wherein the [said] anionic monomer [with] having an ethylenic unsaturation is [chosen] selected from the group consisting of linear or branched unsaturated carboxylic acid, optionally partially or completely neutralized in the form of a salt, and their mixtures.

13. (Amended) The [Method] method of [according to] Claim 12, [characterized in that] wherein the [said] unsaturated carboxylic acid is [chosen] selected from the group consisting of acrylic acid, methacrylic acid, maleic acid, maleic anhydride, itaconic acid, fumaric acid and crotonic acid.

14. (Amended) The [Method] method of [according to] Claim 11, [characterized in that] wherein the [said] hydrophobic monomer [with] having ethylenic unsaturation is [chosen] selected from the group consisting of alkanol acrylic acid esters, [and/or] alkanol methacrylic acid esters, and mixtures thereof.

15. (Amended) The [Method] method of [according to] Claim 14, [characterized in that] wherein the [said] hydrophobic monomer [with] having ethylenic unsaturation is [chosen] selected from the group [composed] consisting of isooctyl (meth) acrylate, isononyl (meth) acrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth) acrylate, isopentyl (meth)acrylate, n-butyl (meth)acrylate, isobutyl (meth) acrylate, methyl (meth)acrylate, tert-butyl (meth) acrylate, tridecyl (meth) acrylate, stearyl (meth) acrylate and [their] mixtures thereof.

16. (Amended) The [Method] method of any one of Claims 1 to 3 [according to Claim 10], [characterized in that] wherein the [said] grafted silicone polymer comprises, in its structure, the unit of following formula (IV):



in which the G₁ [radicals] groups, which are identical or different, represent hydrogen or a C₁-C₁₀ alkyl [radical] group or alternatively a phenyl [radical] group; the G₂ [radicals] groups, which are identical or different, represent a C₁-C₁₀ alkalene group; G₃ represents a [polymer residue] polymeric group [resulting from] prepared by the (homo)polymerization of at least one anionic monomer with ethylenic unsaturation; G₄ represents a [polymer residue] polymeric group [resulting from] prepared by the (homo)polymerization of at least one hydrophobic monomer with ethylenic unsaturation; m and n are , independently of one another, equal to 0 or 1; a is an integer ranging from 0 to 50; b is an integer which can be between 10 and 350 and c is an integer ranging from 0 and 50, with the proviso that one of the parameters a and c is other than 0.

17. (Amended) The [Method] method of [according to] Claim 16, [characterized in that] wherein the [said] unit of formula (IV) [exhibits] has at least one[, and preferably all,] of the following [characteristics]:

- [the] G_1 [radicals denote] is a C_1 - C_{10} alkyl [radical] group;
- n is not zero and [the] G_2 [radicals represent] is a divalent C_1 - C_3 [radical] group;
- G_3 [represents] is a [polymer radical] polymeric group prepared by [resulting from] the (homo) polymerization of at least one monomer comprising [of the] a carboxylic acid group and [with] having ethylenic unsaturation [type];
- G_4 [represents] is a [polymer radical] polymeric group [resulting from] prepared by the (homo) polymerization of at least one [monomer of the] (C_1 - C_{10}) alkyl (meth) acrylate [type] monomer.

18. (Amended) The [Method] method of [according to] Claim 17, [characterized in that] wherein the [said] grafted silicone polymer corresponding to the formula (IV) is a polydimethylsiloxane to which are grafted, via a thiopropylene connecting link [of thiopropylene type], mixed polymer units [of the] comprising poly ((meth)acrylic acid) [type] and [of the] poly (alkyl (meth) acrylate) [type].

19. (Amended) The [Method] method of [according to] any one of [these] Claims 1-3, [characterized in that] wherein the [said] grafted silicone polymer comprises [represents] from 0.03 to 25%[, preferably from 0.3 to 6%, better still approximately 2%,] of the total weight of the [said] composition.

21. (Amended) A [Composition] composition comprising, in a physiologically acceptable medium, at least one grafted silicone polymer comprising a polysiloxane portion and portion composed of a non-silicone organic chain, one of the two portions constituting the main chain of the polymer and the other being grafted to the said main chain and one or

more [draining,] lipolytic, [disinfiltrating,] slimming, firming, antiglycant and/or vasoprotective compounds.

22. (Amended) The [Composition] composition [according to] of Claim 20 or 21, [characterized in that] wherein the [said] compounds are [chosen] selected from the group consisting of: a horse chestnut extract, an ivy extract, a butcher's broom extract, a *Bupleurum chinesis* extract, an algal extract, caffeine and [a rutin derivative] rutinyl salts.

Claims 4-10 and 23 (Canceled).

Claims 24-26 (New).--